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09/920,104	08/01/2001	Yasushi Fujinami	450100-03401	4849

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EXAMINER

SHIBRU, HELEN

ART UNIT	PAPER NUMBER
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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/920,104	Applicant(s) FUJINAMI, YASUSHI	
	Examiner HELEN SHIBRU	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election with traverse of Species IV, claims 1-33, in the reply filed on 07/24/2008 is acknowledged. The traversal is on the ground(s) that the restriction requirement is improper if sent after the first Action on the merits. This is not found persuasive because the restriction requirement can be made anytime not only before the first Action on the merits. See MPEP § 802.

The requirement is still deemed proper and is therefore made FINAL.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/03/2008 has been entered.

Response to Amendments

2. The amendments filed on 04/03 /2008 have been entered and made of record. Claims 1-33 are pending.

Response to Arguments

3. Applicant's arguments filed on 04/03 /2008 have been fully considered but they are not persuasive. See the response below in view of the elected figure, 12.

Applicant states, "There is no description in Applicant's paragraphs [0003]-[0057] of a temporary store that temporarily stores the played back image data transmitted thereto and from

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which the temporarily stored image data is repetitively read out while the playback deck 11 or disk 41 and the transmission section 13 or 43 are stopped.

In response the Examiner respectfully disagrees. First, the one-frame temporary store can be read on as the display (24). The display 24 is a buffer that stores the played back image data transmitted thereto. The admitted prior art in paragraph 0030 discloses the pause state picture is displayed on display 24. Hence display 24 is a temporary storage section since it is storing the paused picture during the pause mode and playing back moving picture in normal playback mode. Second the mechanism deck, 21, can also be 'one-frame temporary store.' The mechanism deck 21 records the image data supplied thereto from the signal processing circuit 22. After the pause mode is entered, the mechanism deck stops feeding of the video tape, i.e. the mechanism deck stored the image data temporarily. The Examiner noted the added limitation 'one-frame.' However since the claim does not recite only one frame. Therefore if the storage stores one or more frames, it meets the limitation.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., repeatedly reading out temporarily stored image data at the reception apparatus when a pause mode is entered at the transmission apparatus **so as to avoid unnecessarily occupying bandwidth of the transmission line by redundant data** (emphasis added)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant states, "Applicant's present specification describes "related art" that does not necessarily fit the statutory definition of "prior art." Applicant's specification does not identify a printed publication or patent that describes such "related art." Applicant's specification does not admit that such "related art" was known in the U.S. before Applicant made his invention, nor does applicant's specification admit that such "related art" was on sale in the U.S. more than one year before the effective filing date of this application. It is conceivable that the "related art" described in the instant specification was known to others in Japan (not necessarily the United States), such as Applicant's co-workers. That which is known to others outside the United States does not qualify as statutory "prior art." Therefore, for this additional reason, the Final Rejection should be withdrawn."

In response the Examiner respectfully disagrees. Related art is seen as Applicant's admitted prior art. The 'related art' should not be published or patented, but if Applicant admitted that such a prior art is existed before the present Application, it is considered a related art. Furthermore, if the related art is a prior art of Applicant's co-worker, and if the subject matter is commonly owned at the time the present Application invention, Applicant is advised to point out the inventor(s) and invention dates of the Applicant. Furthermore, the Examiner respectfully requested the Applicant to point out the MPEP sections that refer to 'related art which is known to others outside the United States does not qualify as a statutory "prior art."'

Applicant states, "Applicant disagrees that Lownes controls his transmission section to stop the transmission of image data when the playback section is stopped. In the pause mode, Lownes continues to transmit whatever frame is played back by the playback section."

In response the Examiner respectfully disagrees. Lownes discloses when the pause mode is entered, the current status window and the paused image is displayed as shown in figure 5. Applicant is requested where Lownes reference discloses continuing to transmit whatever frame is played back by the playback section.

Applicant states, "Applicant also disagrees that the cumulative teachings of Lownes and Nishimura suggest that the control section of Lownes (or of Nishimura) establishes an image data channel and a message channel on the transmission line. Lownes is silent with respect to such channels; and Nishimura relies upon ISDN that avoids the need to establish data and message channels -- these channels already exist."

In response the Examiner respectfully disagrees. Applicant admitted that in Nishimura data and message channels are *already existed*. Therefore Applicant agreed that the channels are *established* (emphasis added). In addition Lownes discloses 1394 establishes a channel for use of delivering data. See also Applicant's related art paragraphs 24-37.

Applicant stated Lownes, Nishimura and Applicant's related art failed to describe or even suggest a temporary store at the reception apparatus to temporarily store the played back image data transmitted from the playback section at the transmission section; and to repetitively read out the temporarily stored image data while the playback and transmission sections both are stopped

The Examiner respectfully disagrees. See the above response in regard to the temporary storage. In addition Applicant related art discloses the camcorder 2 controls the display 24 to display the image data from the camcorder 1. Applicant related art further discloses the

transmitted image data are data frames at intervals of several frames. Then Applicant related art discloses after user entered a pause mode, the mechanism deck 11 stops feeding of the video tape and supplies image data of *the same frame* obtained by repetitively scanning the same portion of *the video tape* (emphasis added). Applicant related art then discloses the *camcorder 2 controls* the *display 24* to display the image data from camcorder 1 *in a similar manner as in the normal playback* (emphasis added). Applicant related art discloses moving picture of a pause state is displayed on the display 24. See paragraphs 0027-0030. Therefore Applicant related art discloses the temporarily stored image data is repetitively read out while transmission is stopped.

The Examiner respectfully requested Applicant to point out where the related art suggested when the playback section at the transmission section is in the pause mode, that playback section repeatedly plays back a frame of image data and transmits the repeated, redundant image data to the reception apparatus.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant states, “With respect to Applicant's claims 14 and 18, these claims call for controlling the reception apparatus to repetitively read out the temporarily stored frame of image data and controlling the transmission section to stop transmitting image data when a message representing that a pause instruction is issued through the network. As mentioned, Lownes does not control his transmission section. Neither Lownes nor Nishimura nor Applicant's related art respond to messages issued through the network.”

In response the Examiner respectfully disagrees. See Lownes claim 3 where the reference recites controlling a peripheral device which is connected to a receiver through a communication channel and where the status are send to the device. See also Applicant's related art paragraph 0001 and figure 2 where it discloses using the network.

Applicant states, “VCR 113 does not temporarily store one frame of played back image data received by the reception section. VCR 113 must repeatedly scan the same image and transmit the repeated image data to STB 90 over IEEE 1394 bus 96 when the VCR is in the pause mode.”

The Examiner respectfully disagrees. VCR 113 can be a temporary storage of one or multiple frames. The VCR can be called a temporarily storage or permanent storage medium.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., display section should be changed over from *displaying the temporarily stored image to display the image received over IEEE 1394 bus 96* (emphasis added)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the

specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to Applicant's argument that the cited references failed to describe transmission section, see Applicant's related art figure 2 camcorder 1 and unit 3.

Applicant states, "Buffers in VCR 113 and in IEEE 1394 interface 110 do not store A/V contents received by the reception section. Rather, these buffers store A/V contents **transmitted to the reception section.**"

In response the Examiner Noted that Applicants agreed that the buffers store the A/V contents transmitted to the reception section. The A/V contents ***transmitted to the reception*** section is the same function as the A/V contents ***received by the reception section*** (emphasis added). The reception section is receiving the A/V contents that are stored in the buffer.

In view of the above, the claimed invention does in fact read on the cited references for at least the reasons discussed above and as stated in the detail Office Action as follows.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4-5, 14-16, 18, and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lownes (EP 0 993 185 A2) in view of Nishimura (US Pat. No. 5,412,418) and further in view of Applicant's related art.

Regarding claim 1, Lownes discloses an image processing apparatus comprising:

a playback section for playing back image data (see page 5 lines 19-21, page 6 lines 35-36 and fig. 2, VCR, TV);

a transmission section for transmitting the played back image data to a reception apparatus through a predetermined transmission line (see page 3 lines 23-30, page 4 lines 3-20 and 49-51 and page 7 lines 3-11); and

a control section for controlling, when an instruction to temporarily stop the playback of the image data is received, said playback section and said transmission section to stop the playback and the transmission of the image data (see fig. 5 and page 12-22, status: stop pause, record, etc.), respectively, and further controlling said transmission section to transmit a message representing that the playback of the image data is temporarily stopped to said reception apparatus through said transmission line (see abstract, page 7 lines 45-51 and figures 2, 4, and 6).

Claim 1 differs from Lownes in that the claim further requires the control section establishes on one transmission line a first channel for transmission of said image data and a second channel for transmission of said message.

In the same field of endeavor Nishimura discloses ISDN (integrated services digital network) has two communication channels, channel one for communication of video and audio data and channel two for transmitting control information such as messages (see col. 6 lines 13-19). Nishimura further discloses a line interface, component 7 in fig. 1, for transmitting and

receiving a message information, transmitting and receiving the multiplexed video and audio signals, making a connection with the ISDN, and sending various messages on the communication line, etc. Therefore in light of the teaching in Nishimura it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lownes by providing one transmission line to transmit two channels in order to improve communication.

Claim 1 further differs from the above proposed combination in that the claim further requires the said reception apparatus having a temporary store to temporarily store the played back image data transmitted thereto and wherein the image data of one frame stored in said one-frame temporary store is repetitively read out while said playback and transmission sections are stopped.

In the same field of endeavor, as admitted by the Applicant, the related art teaches reception apparatus having a one-frame temporary store to temporarily store one frame of the played back image data transmitted thereto and wherein the image data of one frame stored in said one-frame temporary store is repetitively read out while said playback and transmission sections are stopped (see paragraphs 0029 and 0056). Therefore in light of the teaching in the related art it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to display image data through IEEE 1394 cable.

Regarding claim 2, Lownes discloses when an instruction to cancel the temporary stop is received, said control section controls said playback section and said transmission section to resume the playback and the transmission of the image data, respectively, and further controls said transmission section to transmit a message representing that the playback of the image data

is resumed to said reception apparatus through said transmission line (see page 6 lines 3-8, page 7 lines 12-44 and line 51-page 8 line 5).

Note to the Applicant: The US PTO considers the Applicant's "or" language to be anticipated by any reference containing one of the subsequent corresponding elements.

Regarding claim 4, Lownes discloses transmission lines compiles with the IEEE 1394 standard (see page 4 lines 4-20).

Regarding claim 5, the limitations of claim 5 can be found in claims 1 and 2 above. Therefore claim 5 is analyzed and rejected for the same reason as discussed in claims 1 and 2 above.

Regarding claim 14, Lownes discloses an image processing apparatus, comprising:
a playback section for playing back image data (see page 5 lines 19-21, page 6 lines 35-36 and fig. 2, VCR, TV);

a transmission section for transmitting the played back image data to a reception apparatus through a predetermined network (see page 3 lines 23-30, page 4 lines 3-20 and 49-51 and page 7 lines 3-11, tuner, transport stream); and

a control section for controlling, when a message representing that an instruction to temporarily stop the playback of the image data is issued through said network, said transmission section to stop the transmission of the image data (see fig. 5 and page 12-22, status: stop pause, record, etc., see abstract, page 7 lines 45-51 and figures 2, 4, and 6).

Claim 14 further differs from the above proposed combination in that the claim further requires the said reception apparatus having a temporary store to temporarily store the played

back image data transmitted thereto and wherein the image data stored in said temporary store is repetitively read out while said playback and transmission sections are stopped.

In the same field of endeavor, as admitted by the Applicant, the related art teaches reception apparatus having a temporary store to temporarily store the played back image data transmitted thereto and wherein the image data stored in said temporary store is repetitively read out while said playback and transmission sections are stopped (see paragraphs 0029 and 0056). Therefore in light of the teaching in the related art it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above proposed combination in order to display image data through IEEE 1394 cable.

Regarding claim 15, Lownes discloses when a message representing that an instruction to cancel the temporary stop is received through said network, said control section controls said transmission section to resume the transmission of the image data (see page 4 lines 13-20, page 6 lines 3-8, page 7 lines 12-44 and line 51-page 8 line 5).

Regarding claim 16, Lownes discloses wherein said network complies with the IEEE 1394 standard (see page 4 lines 3-20).

Method claim 18 is rejected for the same reason as discussed in apparatus claim 14 above.

Regarding claim 27, see rejection of claim 1 above and figures 1a, 1b, 3b and c and 5.

Regarding claim 28, the limitation of claim 28 can be found in claims 1 and 27 above. Therefore claim 28 is analyzed and rejected for the same reason as discussed in claims 1 and 27 above. It is noted that the prior art in combination with Lownes and Nishimura discloses the

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image is repetitively play back based on the transmitted (selected) pause mode. See the above response as well.

Regarding claims 29-30, the limitations of claims 29-30 is found in claim 1. Therefore claim 29-30 are analyzed and rejected for the same reason as discussed in claim 1 above.

Apparatus claims 31-33 are rejected for the same reason as discussed in claims 28-30 above.

6. Claim 3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lownes in view of Nishimura (US Pat. No. 5,412,418), in view of Applicant's related art, and further in view of Sugiyama (US Pat. No. 5,815,631).

Regarding claim 3, claim 3 differ from Lownes and Nishimura in that the claim further requires transmission section transmits the image data also to an additional reception apparatus or apparatuses through said transmission line. Although Lownes fails to disclose an additional reception apparatus or apparatuses, Lownes discloses a multiplexer for selecting received information from a digital VHS video cassette recorder (DVHS VCR) (see page 4 lines 3-7 Of Lownes). Lownes further discloses the status information is transferred between the digital VCR and the CPU via asynchronous data transfer mode (see page 4 lines 7-12).

In the same field of endeavor Sugiyama discloses the image data is transmitted to an additional reception apparatus or apparatuses (see col. 3 line 35-col. 4 line 28, fig. 1, and fig. 2 VTR 2, 3, 4, and 5). Sugiyama further teaches the TV and the VTRs include input and output selector to receive an input signal from and to supply an output signal to other devices (see col. 3 lines 31-33, 44-47, 54-62 and col. 4 lines 6-11 and line 20-23). In light of the teaching in Sugiyama, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify the apparatus of Lownes by providing an auxiliary reproduction signal input unit in order to control a number of AV devices.

Claim 17 is rejected for the same reason as discusses in claim 3 above.

7. Claims 7-10, 11, 13, 20-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lownes in view of Nishimura (US Pat. No. 5,412,418), further in view of Applicant's related art, and Gerszberg (US Pat. No. 6, 020, 916).

Regarding claim 7, Lownes discloses an image processing apparatus, comprising:
a reception section for receiving played back image data transmitted thereto from a transmission apparatus through a predetermined transmission line (see page 3 lines 23-30, page 4 lines 3-12, and page 7 lines 3-11, VCR, STB, TV);

a one-frame storage section having a storage capacity of one frame for temporarily storing one frame of the played back image data received by, said reception section (see page 4 lines 7-12, page 6 lines 51-54 and fig. 3B and 3C, buffer); and

a display apparatus to display the image data temporarily stored in said storage section (see figure 5).

Claim 7 differs from Lownes in that the claim further requires a control section for controlling when a message representing that playback of the image data is temporarily stopped is received through said transmission line, said display apparatus to repetitively read out and display the image data of one frame temporarily stored in the said one-frame storage section.

In the same field of endeavor the related art discloses a control section for controlling when playback of the image data is temporarily stopped is received through said transmission line, said display apparatus to repetitively read out and display the image data of one frame

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temporarily stored in the said one-frame storage section (see fig. 1-3 and paragraphs 0026-0030 and 0050-0056, see also the response above). Therefore in light of the teaching in the related art it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lownes by displaying image data stored temporarily in storage in order to display background image.

In the same field of endeavor Gerszberg discloses a video teleconferencing with a plurality of parties. Gerszberg teaches when a particular video is muted, a repeated loop of the last few moments of the video displayed (see col. 8 lines 40-59). Gerszberg further discloses a display apparatus to display image data (see fig. 5). Therefore in light of the teaching in Gerszberg it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the proposed combination by providing a repetitive display on the screen in order to show the outgoing video to the other parties.

Claim 7 further differs from the above combination in that the claim further requires wherein the said image data is received on a first channel of the said transmission line and message is received on a second channel of transmission line.

In the same field of endeavor Nishimura discloses ISDN (integrated services digital network) has two communication channels, channel one for communication of video and audio data and channel two for transmitting control information such as messages (see col. 6 lines 13-19). Nishimura further discloses a line interface, component 7 in fig. 1, for transmitting and receiving a message information, transmitting and receiving the multiplexed video and audio signals, making a connection with the ISDN, and sending various messages on the communication line, etc. Therefore in light of the teaching in Nishimura it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination by providing one transmission line to transmit two channels in order to improve communication.

Regarding claim 8, Lownes discloses when a message representing that the playback of the image data is resumed is received through said transmission line, said control section controls said display section to display the image data received thereafter by said reception section (see page 7 line 45-page 8 line 5), and wherein said control section supervises the second channel for delivery of said message (see claim rejection 1 and the response above).

Regarding claim 9, Lownes discloses storage section has a storage capacity for one screen (page 4 lines 7-12, page 6 lines 51-54, and fig. 3B and 3C buffer).

Regarding claim 10, Lownes discloses transmission line complies with the IEEE 1394 standard (see page 4 lines 4-12).

Regarding claim 11, the limitations of claim 11 can be found in claim 7 above. Therefore claim 11 is analyzed and rejected for the same reason as discussed in claim 7.

Regarding claim 13, the limitations of claim 13 can be found in claims 1 and 7. Therefore claim 13 is analyzed and rejected for the same reason as discussed in claims 1 and 7 above. See also the response above.

Regarding claims 20 and 24, the limitations of claims 20 and 24 can be found in claims 1, 2, 7, and 14 above. Therefore claims 20 and 24 are analyzed and rejected for the same reason as discussed in claims 1, 2, 7, and 14.

Claim 21 is rejected for the same reason as discussed in claims 2 and 8 above.

Claim 22 is rejected for the same reason as discussed in claim 9 above.

Claim 23 is rejected for the same reason as discussed in claim 16 above.

Regarding claim 26, the limitations of claim 26 can be found in claim 1, 7, 14, and 20. Therefore claim 26 is analyzed and rejected for the same reason as discussed in claims 1, 7, 14, and 20 above.

8. Claims 6, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lownes in view of Applicant's related art, in view of Nishimura and further in view of Official Notice.

Regarding claims 6 and 19, the limitations in claims 6 and 19 can be found in the apparatus claim 1 and 14 respectively. However claims 6 and 19 further require a recording medium on which a program to be executed by a computer is recorded, and causing a computer to execute steps as claimed in claims 1 and 14. Official notice is taken that it is well known in the art to embody inventions in software to be executed by a computer. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teaching of Lownes and Nishimura by having a record medium capable of being read by a computer tangibly embodying a program causing the computer to execute the steps of the apparatus claim. The motivation for having a recordable by a computer is that such a method can be easily enhanced and executed multiple times.

9. Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lownes in view of Gerszberg (US Pat. No. 6,020,916), in view of Applicant's related art, in view of Nishimura, and further in view of Official Notice.

Regarding claims 12 and 25, the limitations in claims 2 and 25 can be found in the apparatus claim 7 and 20 respectively. However claims 12 and 25 further require a recording medium on which a program to be executed by a computer is recorded, and causing a computer

to execute steps as claimed in claims 7 and 20. Official Notice is taken that it is well known in the art to embody inventions in software to be executed by a computer. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teaching of Lownes and Gerszberg by having a record medium capable of being read by a computer tangibly embodying a program causing the computer to execute the steps of the apparatus claim. The motivation for having a recordable by a computer is that such a method can be easily enhanced and executed multiple times.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571)272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2621
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/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621